

ABSTRACT

A method of fabricating a solid-state imaging device is provided, which enables to form an anti-reflection film by oxidizing a surface of a metallic light-shield film without adding a step even though the metallic light-shield film is composed of not only refractory metal silicide but also metals including tungsten and molybdenum. The method comprises the steps of forming a metallic light-shield film on a light receiving sensor and a transfer electrode formed on a surface layer of a wafer, forming an opening on the metallic light-shield film on the light receiving sensor by etching, forming an interlayer film, and shaping the interlayer film to be a lens shape by heat treatment. An atmosphere of either one or both of oxygen gas and ozone gas is prepared in a chamber for forming the interlayer film, and a surface of the metallic light-shield film is oxidized before the interlayer film is formed.